

10. PROSPERITY: Economic Development

OVERVIEW

In preparation of the Amherst Comprehensive Plan, the Town of Amherst requested that the University of Massachusetts Donahue Institute prepare a comprehensive set of economic data. This chapter provides a summary of Amherst's economic conditions as profiled in the economic data. Following this overview, the chapter is organized into two sections:

- **Key Findings** – The key findings represent a summary of important conclusions drawn by the consulting team based on the research by the UMass Donahue Institute.
- **Detailed Information** – This section includes the background documentation for the key findings. It offers perspective on the Town's employment trends, retail sales, commercial real estate, and the significant role of the University and Colleges in Amherst's economy. All material in this section is taken directly from the Donahue Institute Report.

KEY FINDINGS

1. Employment is concentrated in educational services including the University of Massachusetts, Hampshire College, and Amherst College. Educational services account for 58.2 percent of all jobs in Amherst.

2. The retail sector within Amherst is extremely reliant upon expenditures from the students, faculty, and staff at the University and Colleges.
3. The U.S. Economic Census for 1997 and 2002 shows that Amherst has experienced modest but steady growth in retail sales.
4. Real estate rental rates show that Amherst is a desirable location for businesses, although less robust than retail in nearby Northampton.
5. There is limited job growth in the area, particularly for jobs with higher wages.
6. Amherst's economy relies heavily upon the University and the Colleges, which are tax-exempt institutions. The fiscal burden for providing municipal services rests largely on the Town's residential property owners.

DETAILED INFORMATION

All material under Detailed Information is drawn directly from the UMass Donahue Institute's *Economic Analysis of the Town of Amherst*, prepared for the Town of Amherst, April 9, 2007.

Employment

The Town of Amherst has a stable but relatively narrow employment base compared to the Pioneer Valley and Massachusetts. From 2004 to 2006, employment in Amherst grew by 1.7 percent compared to a 2.8 percent growth in jobs statewide. Historically, the unemployment rate in Amherst is consistently lower than that of the Pioneer Valley or Massachusetts. At the height of the recent economic downturn in 2003, the unemployment rate in Amherst was 2.5 percent while the unemployment rate in the Pioneer Valley and the state was 5.8 percent. In 2006, the unemployment rate in Amherst was 3.5 percent compared to a statewide unemployment rate of 5.2 percent.

Employment by Industry

Employment trends by industry document the Town of Amherst's reliance on a relatively small set of industries for income and employment. Amherst's employment is concentrated primarily in educational services, particularly the colleges and the University of Massachusetts. In 2006, Amherst was home to 14,121 jobs, with 58.2 percent of total employment in educational services. The next highest categories were food services and accommodations (8.7 percent), retail trade (6.9 percent) and healthcare and social services (6.4 percent). As will be explored further below, Amherst has a very narrow export-base. Retail activity, food services and healthcare are almost all, in the case of Amherst, service industries providing for the basic needs of town residents, including students. The colleges and universities, with their student population, are the dominant source of income for the community. The Town's reliance on the colleges and university for employment has the benefit of providing fairly stable employment. It also means that local businesses and Town finances are highly sensitive to changes to educational costs or support at the colleges that reduce the purchasing power of the institutions, their faculty and staff or students.

From 2004 to 2006, seven major employment sectors grew in Amherst, while nine other sectors declined. Employment grew in: Construction, Real Estate, the Management of Companies and Enterprises, Arts, Entertainment and Recreation, Accommodations and Food Services, Other Services, and Public Administration. Employment growth was particularly strong in fields with relatively low pay, such as Arts, Entertainment and Recreation, and Accommodations and Food Services.

During the same period, Amherst experienced declining employment in nine sectors, with steep declines in five sectors and milder declines in four sectors. Amherst experienced relatively small job losses in Retail Trade, Finance and Insurance, Educational Services, and Healthcare and Social Assistance. Sharper job losses occurred in Agriculture, Transportation and Warehousing, Information, Professional and Technical Services, and Administrative and Waste Services. Though Amherst has relatively few jobs in these fields of work, it is notable that Amherst lost 16 percent of its Professional and Technical jobs and 53.4 percent of Administrative and Waste Services jobs between 2004 and 2006. Generally speaking, employment in Amherst grew in fields with relatively low pay and declined in sectors with higher average pay. Average wages in Amherst will be discussed further in a later section of this memorandum.

Small Businesses, solo consultants and practitioners account for a modest but substantial percentage of total employment in the Town of Amherst. According to December 2004 data from Dun and Bradstreet, Amherst had a total of 1,192 workers employed in firms with three or fewer employees, including 70 people who worked in solo establishments. According to Dun and Bradstreet's industry definitions, the solo businesses were distributed in a variety of sectors including retail sales, consulting, repair shops and other services. In 2004, Hampshire County had a total of 12,076 solo businesses, with 2,400 people working in professional, scientific and technical services, 1,264 people in the arts and entertainment, and 1,436 people working construction.

Cluster Analysis

Traditional regional economic analysis emphasizes discussion of the "economic base" of a region. The economic base is simply those industries or sectors that sell goods or services outside of the region (or in Amherst's case, the municipality) and thereby import dollars that bring income to local households and merchants. Cluster analysis is a form of economic base analysis that extends the theoretical framework to include an implicit understanding of how firms in similar trades share technical knowledge and workers.

Cluster Analysis by Industry in Amherst, Pioneer Valley and MA, 2004						
Sector	Amherst		Pioneer Valley		Massachusetts	
	LQ (US Base)	LQ (MA Base)	LQ (US Base)	LQ (MA Base)	LQ (US Base)	LQ (MA Base)
Advanced Technology Manuf:	0.07	0.03	0.30	0.21	1.43	N/A
All Other Sectors	0.48	0.60	0.87	1.00	0.87	N/A
Arts, Tourism & Recreation	0.80	0.97	0.82	0.99	0.83	N/A
Financial Services	0.28	0.28	0.74	0.72	1.03	N/A
Healthcare	0.52	0.47	1.22	1.10	1.11	N/A
Knowledge Creation	4.96	2.91	1.53	0.92	1.68	N/A
Traditional Manufacturing	0.07	0.09	1.03	1.61	0.64	N/A

Source: Mass Division of Unemployment Assistance; Calculation by UMass Donahue Institute, 2007.
Note: Location quotient is a ratio of the share of employment in an industry in a region to the share of employment of the industry in a comparison geography. In this example the U.S. and Massachusetts.

The cluster analysis table, displayed above, shows the economic base of the Town of Amherst, the Pioneer Valley and Massachusetts. The table shows those export clusters in which employment in Amherst is more highly concentrated than in nation (LQ-U.S. Base) or the state (LQ-MA Base). A good rule of thumb when looking at the table is that an “LQ” over 1.00 means that Amherst is particularly concentrated in a kind of activity. An LQ below 1.00 signifies that Amherst has on average less employment in a sector than the state or nation. The farther that the LQ diverges from 1.00, whether up or down, the stronger the claim as to a place’s strengths or weaknesses.

As can be seen from the table, Amherst is very strong in Knowledge Creation, reasonably concentrated in Arts, Tourism and Recreation, and is less concentrated in employment in every other area of employment. Amherst has very little activity in either Advanced Manufacturing or Traditional Manufacturing, which is notable given that the Pioneer Valley has a higher concentration of traditional manufacturing employment than the state. The Financial Services and Healthcare clusters are not well represented when compared to the Pioneer Valley or Massachusetts. Both clusters can contain either exporters or locally-serving businesses. In Amherst’s case, most of the financial and health services operating in Amherst serve the needs of local residents, though almost half of the health care employment occurs at nursing and rehabilitation facilities.

Knowledge Creation industries are often highlighted as the primary export industries in Massachusetts. Research laboratories, private companies, consultants and major nonprofit institutions, colleges and universities form the core of Massachusetts’ innovation economy. Amherst is highly concentrated in the Knowledge Creation cluster, with almost five times the average employment in the cluster when compared to the nation and nearly three times the state’s employment. However, almost all of Amherst’s Knowledge Creation employment is located at Amherst and Hampshire College and the University of Massachusetts. Over 93 percent of all Knowledge Creation jobs in Amherst are in education. In 2006, employment in the Information sector constituted only 1.2 percent (169 jobs) of total employment in Amherst. In the same year, employment at Professional and Technical Services companies constituted only 2 percent

(279 jobs) of total employment in Amherst. By comparison, Educational Services comprised 58.2 percent (8,217 jobs) of total employment in the Town during 2006. It is evident that Amherst is highly dependent for its economic well-being on income generated by enrollment and employment at the Town's colleges and university.

Amherst's relative strength in the export cluster Arts, Tourism and Recreation masks an underlying relationship between employment in that cluster and the presence of the Town's institutions of higher education. Almost all of the employment in the cluster, fully 85 percent of all jobs, is due to employment at Amherst's food services and accommodations businesses. Though the Town does enjoy visitation from alumni and tourists, the majority of Amherst's restaurants, cafes and bars are heavily dependent on the expenditures of students, faculty and staff at the colleges. There is nothing wrong with that at all. The implication of the finding is that local businesses are largely dependent on the economic activity of the colleges.

Hourly Wages

The table below compares the average hourly wage for workers in Amherst, Northampton, Springfield and Greenfield. In 2005, Amherst enjoyed comparable wages in most sectors when compared to nearby communities in the Pioneer Valley. Education, which is the dominant field in Amherst, offers a comparatively high average wage. Notably, Northampton, Springfield and Greenfield have both a higher number of manufacturing jobs and significantly higher average pay.

Apart from Education, Amherst is most highly concentrated in Retail Trade, Arts, Entertainment and Recreation, and Accommodations and Food Services. As shown below, the average wages in those sectors are considerably lower than in Education – often less than 10 dollars per hour. Other well-paying sectors, such as Professional and Technical Services or Finance and Insurance, are not as well-represented in Amherst's economy. In general, wages in Amherst are concentrated in well-paying employment at the colleges and UMass or in lower wage employment in service industries.

Average Hourly Wages in Amherst and Selected Cities, 2005				
Industry Sector	Amherst	Northampton	Springfield	Greenfield
Construction	\$20.28	\$19.73	\$24.78	\$16.33
Manufacturing	\$12.25	\$25.68	\$22.83	\$19.73
Wholesale Trade	\$22.78	\$19.25	\$19.55	\$19.23
Retail Trade	\$11.15	\$11.98	\$11.20	\$10.95
Transportation and Warehousing	\$16.43	\$19.30	\$22.35	\$24.33
Information	\$16.60	\$19.18	\$22.28	\$15.70
Finance and Insurance	\$22.90	\$26.20	\$30.23	\$22.98
Real Estate and Rental and Leasing	\$16.05	\$12.03	\$15.38	\$10.80
Professional and Technical Services	\$20.68	\$19.30	\$23.48	\$24.10
Management of Companies and Enterprises	\$24.65	\$16.03	\$26.70	\$17.55
Administrative and Waste Services	\$14.20	\$11.85	\$10.95	\$8.85
Educational Services	\$24.35	\$19.75	\$19.90	\$15.85
Health Care and Social Assistance	\$14.23	\$18.60	\$19.88	\$15.15
Arts, Entertainment, and Recreation	\$5.13	\$7.38	\$6.48	\$6.90
Accommodation and Food Services	\$6.48	\$7.45	\$6.55	\$5.78
Other Services, Ex. Public Admin	\$9.58	\$10.68	\$9.40	\$10.93
Public Administration	\$24.83	\$23.30	\$23.63	\$20.38

Source: MA Department of Unemployment Assistance, 2006; UMass Donahue Institute, 2007.

Retail Trade

The Town of Amherst is home to a sizeable percentage of all retail sales in Hampshire County. According to the Economic Census, in 2002 Amherst had 11.6 percent of all retail sales in Hampshire County. In 2002, Amherst was home to approximately two percent of all retail sales in the Pioneer Valley (Hampden, Hampshire and Franklin Counties). The retail sales tables, shown below, compare sales data from the U.S. Economic Census for 1997 and 2002. As may be seen from the tables, Amherst experienced modest but steady growth in most retail sectors during that five-year period.

Amherst's retail sales are concentrated in a few major categories: Food and Beverage stores; Sporting Goods, Hobby, Book and Music Stores; Building Materials and Garden Equipment; Gasoline Stations; and Non-store Retailers, such as mail-order businesses. In 2002, Food and Beverage stores was the highest selling category by sales with over \$43 million in revenue. The categories that had the highest percentage of total sales in Hampshire County were Sporting Goods, Hobby, Book and Music Stores and Building Materials and Garden Equipment Stores.

Retail Sales in Amherst as a Share of Hampshire County Sales, 1997 & 2002

Retail Trade in 1997			
Retail Sector	Amherst	Hampshire County	Amherst as Percentage of Hampshire County
All Retail Trade (44-45)	\$91,042,000	\$964,589,000	9.44%
Motor Vehicle and Parts Dealers (441)	\$4,141,000	\$195,309,000	2.12%
Furniture and Home Furnishing Stores (442)	\$1,006,000	\$16,053,000	6.27%
Electronics and Appliance Stores (443)	\$0	\$25,003,000	0.00%
Building Material and Garden Equipment (444)	\$9,291,000	\$83,267,000	11.16%
Food and Beverage Stores (445)	\$34,198,000	\$272,505,000	12.55%
Health and Personal Care Stores (446)	\$0	\$53,490,000	0.00%
Gasoline Stations (447)	\$9,428,000	\$85,189,000	11.07%
Clothing and Clothing Accessories Stores (448)	\$3,413,000	\$54,021,000	6.32%
Sporting Goods, Hobby, Book and Music Stores (451)	\$9,384,000	\$44,713,000	20.99%
General Merchandise Stores (452)	D	\$57,230,000	
Miscellaneous Store Retailers (453)	\$0	\$32,287,000	
Nonstore Retailers (454)	\$0	\$45,522,000	0.00%
Retail Trade 2002			
Retail Sector	Amherst	Hampshire County	Amherst as Percentage of Hampshire County
All Retail Trade (44-45)	\$147,533,000	\$1,268,629,000	11.63%
Motor Vehicle and Parts Dealers (441)	\$6,468,000	\$257,318,000	2.51%
Furniture and Home Furnishing Stores (442)	\$3,247,000	\$28,771,000	11.29%
Electronics and Appliance Stores (443)	\$0	\$20,460,000	0.00%
Building Material and Garden Equipment (444)	\$18,776,000	\$78,458,000	23.93%
Food and Beverage Stores (445)	\$43,917,000	\$330,945,000	13.27%
Health and Personal Care Stores (446)	\$0	\$88,712,000	0.00%
Gasoline Stations (447)	\$16,791,000	\$97,451,000	17.23%
Clothing and Clothing Accessories Stores (448)	\$2,805,000	\$65,009,000	4.31%
Sporting Goods, Hobby, Book and Music Stores (451)	\$19,991,000	\$53,685,000	37.24%
General Merchandise Stores (452)	D	D	N/A
Miscellaneous Store Retailers (453)	D	D	N/A
Nonstore Retailers (454)	\$9,287,000	\$63,589,000	14.60%

Source: U.S. Bureau of the Census, Economic Census for 1997 & 2002; calculations by the UMass Donahue Institute, 2006.

Profile of Real Estate Rental Rates

The rental price of commercial real estate in the Town of Amherst can be an indicator market demand for retail, office and other types of economic activities in the Town. The Assessor's Offices in Amherst and Northampton maintain data on the size, vacancy rates and price per square-foot of commercial retail in their municipalities. Northampton is home to a wide variety of retail locations, with the price of rental space varying from \$12 to \$18 per square-foot on Pleasant Street to a high of \$22 to \$30 per square-foot on the first floor of buildings on Main Street. In contrast, Amherst's retail space ranges from low of \$8.50 per square-foot to a high of \$14.50 per square-foot. The lower, though comparable, rents are evidence that Amherst is a desirable, though less robust retail location compared to Northampton.

The profile of office rents in Northampton and Amherst underscores the general absence of Class A office space in the Town of Amherst. The highest office rents in Northampton were for Class A space in their downtown and Florence. The office rents in Amherst (which were not classified by the Amherst Assessor's Office) were almost identical to the Class B and C office rental rates available in Florence, Massachusetts.

Rental Rates in Amherst and Northampton, 2006

Category	Amherst		Northampton	
	Rental Range (per.s.f.)		Rental Range (per.s.f.)	
	Low	High	Low	High
Office	\$8.50	\$13.50	\$9.00	\$18.00
Warehouse	\$3.00	\$6.00	\$5.00	\$5.00
Retail	\$8.50	\$14.50	\$10.00	\$30.00

Source: Assessor's Offices in Amherst & Northampton, 2006.

Conclusion

The purpose of this memorandum is to provide information regarding Amherst's economic trends as town residents, workers and visitors plan for their common future in the community. There are a few notable implications from this data that are worth some consideration. First, the Town has a stability and resilience economically that is due to the presence of the University of Massachusetts, Amherst College and Hampshire Colleges. The colleges are the only large source of employment and net income to town residents and businesses. The majority of the Town's remaining employers primarily derive income from serving town residents, students and the colleges.

Second, the impact of primarily relying on the colleges and university for the Town's employment is to limit the number of net new jobs available in the Town during a given year. The colleges have fairly stable employment levels each year with minimal turnover. Though the jobs that exist in the Town can be very professionally-satisfying and well-paying, the absence of job growth limits the opportunity for college or high school graduates to stay in Amherst.

Third, the Town's service and retail establishments are reliant on a fairly stable pie of disposable income from residents and students. With a limited and stable set of income into the Town there is limited opportunity for new retail, food service and other personal services to grow in the Town.

The fourth and final implication of the analysis flows directly from the previous observations. Amherst's economic base relies heavily on tax-exempt institutions. The majority of the Town's private sector companies rely upon a relatively static pool of discretionary income generated largely by the colleges. In addition, retail and food service establishments face competition from nearby towns. The result of the relatively static condition of Amherst's economy is that there is little growth in commercial development and little pressure on commercial real estate prices. The fiscal impact of Amherst's current economic base is two-fold: one, there are relatively few well-paying private sector job openings in Amherst for residents to seek; and two, relatively light demand for commercial real estate in Amherst distributes the fiscal burden of municipal services on the Town's residential property-owners.